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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/622,360	08/16/2000	Keiji Shigesada	Q60187	3575
23373	7590	07/01/2004	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			LUK, EMMANUEL S	
			ART UNIT	PAPER NUMBER
			1722	

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/622,360

Applicant(s)

SHIGESADA ET AL.

Examiner

Emmanuel S. Luk

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-15, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-15, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6-11, 15, 17 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims claim both an apparatus and the method steps of using the apparatus. In Ex part Lyell, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990). See also MPEP 2173.05(p).

The apparatus claims will still be examined, however, the process limitations of operating the apparatus will not be given patentable weight.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 6, 8, 10, 15, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Maus (5340303).

Maus teaches injecting molten resin material into a cavity (4), fixed and movable die (1,2), cut punch (9), having undercuts (11) and resin reservoir (12). Maus discusses

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process of removing the sprue from the mold while the material is still hot (Col. 2, lines 18-32). The cut punch and resin reservoir corresponds to the opening in the resin product (Fig. 1A). The ejector pin (14) removes the article that is held in place by the undercuts.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 7, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maus (5340303) in view of Ikuo and Kunio.

Maus teaches injecting molten resin material into a cavity (4), fixed and movable die (1,2), cut punch (9), having undercuts (11) and resin reservoir (12). Maus discusses

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process of removing the sprue from the mold while the material is still hot (Col. 2, lines 18-32).

Maus fails to teach a plurality of cavities, resin reservoirs and cut punches and valve gate structure to close the gate.

Ikuo teaches the simultaneous molding of a plurality of products by a plurality of cavities and cut punches. This is a multiplied effect of producing a plurality of products via simultaneously molding of a plurality of elements. In regards to claim 7, the plural pairs of the elements is a plurality of the elements.

Kunio teaches a valve gate structure as a valve pin (26) that moves forward to cut off the flow of the material (R) to the gate (23) as it joins with gate closing part (33) to prevent material from flowing into the cavity (3).

It would have been obvious to one of ordinary skill in the art to modify Maus with have a plurality of cavities, resin reservoirs and cut punches as taught by Ikuo to mold a plurality of molded products, a valve gate structure as taught by Kunio to shut off the flow of materials to the gate.

In regards to claim 11, the depth in the movement direction is merely a process limitation in using the apparatus.

8. Claims 1-5, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maus et al (5340303) in view of Kunuo and Ikuo.

Maus teaches injecting molten resin material into a cavity (4), fixed and movable die (1,2), cut punch (9), having undercuts (11) and resin reservoir (12). Maus discusses

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process of removing the sprue from the mold while the material is still hot (Col. 2, lines 18-32).

Maus fails to teach a plurality of cavities, resin reservoirs and cut punches and valve gate structure to close the gate.

Ikuro teaches the simultaneous molding of a plurality of products by a plurality of cavities and cut punches. This is a multiplied effect of producing a plurality of products via simultaneously molding of a plurality of elements. In regards to claim 7, the plural pairs of the elements is a plurality of the elements.

Kunio teaches a valve gate structure as a valve pin (26) that moves forward to cut off the flow of the material (R) to the gate (23) as it joins with gate closing part (33) to prevent material from flowing into the cavity (3).

It would have been obvious to one of ordinary skill in the art to modify Maus with have a plurality of cavities, resin reservoirs and cut punches as taught by Ikuro to mold a plurality of molded products, a valve gate structure as taught by Kunio to shut off the flow of materials to the gate.

In regards to claim 5, the resin reservoir corresponding to a shape of the opening of the resin molded product, this is a change in form or shape of the reservoir to conform to the product. Additionally, the change in depth for the movement of the cut punch into the reservoir is merely a change in shape and size. In re Dailey et al, 149 USPQ 47 (CCPA 1966).

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Response to Arguments

9. Applicant's arguments with respect to claims 1-11, 13-15, 17 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Maus teaches the claimed structure with the undercuts located on a cut punch in an injection molding machine.

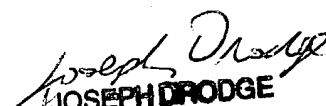
Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (571) 272-1134. The examiner can normally be reached on Monday-Thursday 7 to 4 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EL


JOSEPH DODGE
PRIMARY EXAMINER